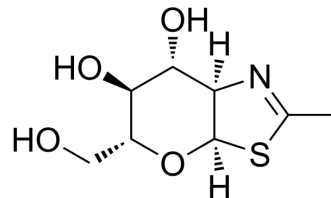


NAG-thiazoline

Cat. No.:	HY-139431
CAS No.:	179030-22-9
Molecular Formula:	C ₈ H ₁₃ NO ₄ S
Molecular Weight:	219.26
Target:	Bacterial
Pathway:	Anti-infection
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (456.08 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	4.5608 mL	22.8040 mL	45.6080 mL
				5 mM	0.9122 mL	4.5608 mL	9.1216 mL
				10 mM	0.4561 mL	2.2804 mL	4.5608 mL
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: 2.5 mg/mL (11.40 mM); Clear solution; Need ultrasonic						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (11.40 mM); Clear solution; Need ultrasonic						
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: 2.5 mg/mL (11.40 mM); Clear solution; Need ultrasonic						

BIOLOGICAL ACTIVITY

Description	NAG-thiazoline is a O-GlcNAcase inhibitor with a K _i of 180 nM. NAG-thiazoline is a potent GH20 GlcNAcase (VhGlcNAcase) inhibitor with an IC ₅₀ of 11.9 μM and a K _i of 62 μM ^[1] .
In Vitro	NAG-thiazoline completely inhibits the growth of <i>V. campbellii</i> strain 650 with a MIC value of 0.5 μM ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Macauley MS, et al. Increasing O-GlcNAc levels: An overview of small-molecule inhibitors of O-GlcNAcase. *Biochim Biophys Acta*. 2010 Feb;1800(2):107-21.

[2]. Piyanat Meekrathok, et al. NAG-thiazoline is a potent inhibitor of the *Vibrio campbellii* GH20 β -N-Acetylglucosaminidase. *FEBS J*. 2020 Nov;287(22):4982-4995.

Caution: Product has not been fully validated for medical applications. For research use only.

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